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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,681	06/25/2003	Masahiko Maruhashi	K2580.0101	1356

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EXAMINER

HSIEH, SHIH YUNG

ART UNIT PAPER NUMBER

2837

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/602,681

Applicant(s)

MARUHASHI ET AL.

Examiner

Shih-yung Hsieh

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-17, 20, 22-40 is/are rejected.
- 7) ☒ Claim(s) 7-9, 18, 19 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2837

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 14-16, 20, 22, 25, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Belli et al. (4,589,323).

Regarding claim 1, Belli et al. disclose a percussion pad comprising a surface (10) being smooth and extending without apertures (Figs. 1 and 2), an accumulator (14) made of resilient material (col. 2, line 41), connected in series to said surface (Fig. 2) so as to be locally deformed at each beat, a base (15) made of a material smaller in resiliency than said accumulator (col. 2, line 42), provided on the opposite side of said accumulator from said surface and held in contact with said accumulator (Fig. 2 ).

Regarding claim 2, Belli et al. disclose the claimed invention (Fig. 2).

Regarding claim 14, Belli et al. disclose the claimed invention (13 in Fig. 2).

Regarding claim 15, Belli et al. disclose the claimed invention (Figs. 1-3).

Regarding claim 16, Belli et al. disclose the claimed invention (50).

Regarding claims 20 and 28, Belli et al. disclose the features as addressed in claim 1, including a supporting structure (11) for keeping said percussion pad in an

attitude convenient to be beaten by said player; and a coupling device (12) connected between said percussion pad and said supporting structure (Fig. 2).

Regarding claims 22 and 25, Belli et al. disclose the claimed invention (Figs. 1 and 2).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-6, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belli et al. in view of Duncan et al. (4,852,443).

Regarding claim 3, Belli et al. disclose the claimed invention except that said accumulator is formed by an array of pillars projecting from said reverse surface of said solid portion toward said base.

Duncan et al. teach an accumulator (1) formed by an array of pillars (1') projecting from a reverse surface of said solid portion (Fig. 1 shows a solid portion under cover C) toward a base (3 can be interpreted as a base) for providing responsive to touch and variable forces applied over a two-dimensional surface. It would have been obvious to one having ordinary skill in the art to modify Belli et al's pad as taught by Duncan et al. to include said accumulator formed by an array of pillars projecting from

said reverse surface of said solid portion toward said base for the purpose of providing responsive to touch and variable forces applied over a two-dimensional surface.

Regarding claims 4-6, Belli et al. in view of Duncan et al. disclose the claimed invention.

Regarding claim 17, see above statement.

5. Claims 10-13, 23-24, 26-27, 29-30, and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belli et al. in view of Suenaga.

Regarding claim 10, Belli et al. disclose the claimed invention except that an accumulator formed by an array of pillars projecting from a solid portion made of resilient material and the surface at the tips of said pillars form in combination said surface to be beaten by said player.

Suenaga teaches an accumulator formed by an array of pillars (43) projecting from a solid portion (42) made of resilient material and the surface (11) at the tips of said pillars form in combination said surface to be beaten by said player (Fig. 5).

It would have been obvious to one having ordinary skill in the art to modify Belli et al's pad as taught by Suenaga to include an accumulator formed by an array of pillars projecting from a solid portion made of resilient material and the surface at the tips of said pillars form in combination with said surface for the purpose of being beaten by a player.

Regarding claim 11, Belli et al. in view of Suenaga disclose the claimed invention.

Regarding claims 12 and 13, Belli et al. disclose the claimed invention.

Regarding claim 23, Belli et al. disclose the claimed invention except that said supporter has plural of brackets secured to said supporting structure at intervals and plural cushion blocks respectively secured to said plural brackets.

Suenaga teaches a supporter having plural of brackets (20) secured to a supporting structure (21) at intervals and plural cushion blocks (50) respectively secured to said plural brackets for providing flexibility between a support member and a support plate (col. 6, lines 25-27). It would have been obvious to one having ordinary skill in the art to modify Belli et al's instrument as taught by Suenaga to include said supporter has plural of brackets secured to said supporting structure at intervals and plural cushion blocks respectively secured to said plural brackets for the purpose of providing flexibility between a support member and a support plate.

Regarding claim 24, Belli et al. disclose the claimed invention (col. 2, line 40).

Regarding claims 26-27, and 29-30, Belli et al. discloses the claimed invention except that the sensors.

Suenaga teaches at least one sensor and another sensor (the sensors 51 and 52) for producing electric signals fro the vibration. It would have been obvious to one having ordinary skill in the art to modify Belli et al's instrument as taught by Suenaga to include the sensors for the purpose of producing electric signals fro the vibration.

Regarding claim 37, Belli et al. disclose the claimed invention except that sensors and an electronic sound generator connected to said at least one vibratory sensor.

Suenaga teaches sensors addressed in claims 26-27, and 29-30, including an electronic sound generator (54) connected to said at least one vibratory sensor, carrying out a data processing (53) on pieces of data information on said electric signal for producing an audio signal (58) and converting said audio signal to an electronic percussion sound (Fig. 6).

It would have been obvious to one having ordinary skill in the art to modify Belli et al.'s instrument as taught by Suenaga to include sensors and an electronic sound generator connected to said at least one vibratory sensor for the purpose of producing an audio signal and converting said audio signal to an electronic percussion sound.

Regarding claims 38-40, see above statement.

6. Claims 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belli et al. in view of Klynas (4,479,412).

Regarding claims 31-36, Belli et al. disclose the claimed invention except to apply the invention to a plurality of drums or a drum set.

Klynas teaches a plurality of electronic drums (40-16) having the same features for synthesizing the sounds of percussion instruments (col. 1, lines 10-13). It would have been obvious to one having ordinary skill in the art to modify Belli et al.'s instrument as taught by Klynas to include the application of the invention to a plurality of drums or a drum set for the purpose of synthesizing the sounds of percussion instruments.

Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include applying the features to a plurality of drums or a drum set, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *Regis Paper Co. v. Remis Co.*, 193 USPQ 8.

7. Claims 7-9, 18-19, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claim 18 is allowable over the prior art for at least the reason that the prior art fails to reasonably teach or suggest in claim 18 that said accumulator is formed by another array of pillars projecting from a solid portion to said base, and said array of pillars is held in contact with said solid portion as set forth in the claimed combination. The reason for other claims has been stated in the previous office action.

9. Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-yung Hsieh whose telephone number is 571-272-2065. The examiner can normally be reached on 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
SHIH-YUNG HSIEH  
PRIMARY EXAMINER